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Date	August 28, 2007
To	Exr. J. Goldfarb
Of	USPTO AU 3663
Fax	571-273-7964
From	Alan J. Kasper
Subject	Interview - Draft Amendment to Claims
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Dear Examiner Goldfarb,

The following are proposed amendments to the claims to resolve the issues that you raised in our interview. Please advise if acceptable for Examiner's amendment to obtain allowance.

Regards, Alan Kasper 25,426

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A wheel speed detection system comprising:

a rotator ~~which rotates~~ configured to rotate on an axle center of a wheel together with the wheel, and plural concave and convex portions formed on a periphery of the rotator along a rotational direction with predetermined intervals therebetween;

a sensor head disposed so as to face a surface of the convex portion with certain distance therebetween, and constituted with a coil to generate alternate current magnetic field thereraround under supply of alternate current;

a detector ~~which excites~~ configured to excite the coil by supplying alternate current to generate eddy current on the concave and convex portions, and outputs alternate current detection signals corresponding to a change in an amount of the eddy current generated with rotation of the rotator;

a pulse converter ~~which converts~~ configured to convert the alternate current detection signals into pulse signals according to preset threshold levels; and

a speed calculator ~~which calculates~~ configured to calculate rotational speed of the wheel based on the pulse signals,

the wheel speed detection system further comprising a threshold shifter ~~which shifts~~ configured to shift the threshold levels corresponding to actual facing distance between the surface of the convex portion and the sensor head,

wherein ~~when the threshold levels are shifted by the threshold shifter~~, the pulse converter is configured to conducts conversion into the pulse signals according to the shifted threshold levels when the threshold levels are shifted by the threshold shifter, and

wherein the threshold shifter is configured to obtains a difference between a default average, which is an average of the alternate current detection signals when a preset facing distance between the surface of the convex portion and the sensor head is the certain distance, and an average of the alternate current detection signals actually outputted from the detector, and shifts the threshold levels corresponding to the difference.

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2. (currently amended): The wheel speed detection system as set forth in claim 1, wherein the threshold shifter is configured to shifts the threshold levels so that the threshold levels fall within amplitude range of alternate current detection signals outputted from the detector.

3. (canceled):

4. (currently amended): The wheel speed detection system as set forth in claim 1, wherein the threshold levels are constituted with two threshold levels having hysteresis, and

wherein the threshold shifter is configured to shifts the two threshold levels while retaining an amount of the hysteresis.

5. (**cancelled**): A wheel speed detection system comprising:

a rotator which rotates on an axle center of a wheel together with the wheel, and plural concave and convex portions formed on a periphery of the rotator along a rotational direction with predetermined intervals therebetween;

a sensor head disposed so as to face a surface of the convex portion with certain distance therebetween, and constituted with a coil to generate alternate current magnetic field thereabout under supply of alternate current;

a detector which excites the coil by supplying alternate current to generate eddy current on the concave and convex portions, and outputs alternate current detection signals corresponding to a change in an amount of the eddy current generated with rotation of the rotator;

a pulse converter which converts the alternate current detection signals into pulse signals according to preset threshold levels; and

a speed calculator which calculates rotational speed of the wheel based on the pulse signals,

the wheel speed detection system further comprising a detection signal shifter which shifts the alternate current detection signals outputted by the detector for some level corresponding to an actual facing distance between the surface of the convex portion and the sensor head, and

wherein when the alternate current detection signals are shifted by the detection signal shifter, the pulse converter converts the alternate current detection signals after the shifting into pulse signals.

6. (**cancelled**): The wheel speed detection system as set forth in claim 5, wherein the detection signals shifter shifts the alternate current detection signals so that the threshold levels fall within the amplitude rage of the alternate current detection signals.

7. (**cancelled**): The wheel speed detection system as set forth in claim 6, wherein the detection signals shifter obtains a difference between a default average, which is an average of the alternate current detection signals when a facing distance between a surface of the concave portion and the sensor head is equivalent to the certain distance, and an average of the alternate current detection signals actually outputted from the detector, and shifts the alternate current detection signals for some level corresponding to the difference.

8. (**cancelled**): The wheel speed detection system as set forth in any of claims 5 to 7, wherein the threshold levels are constituted with two threshold levels having hysteresis.

9. (currently amended): The wheel detection system as set forth in claim 1, wherein the wheel speed detection system is (1) mounted on a vehicle of a railway with primary side on ground system, ~~in which~~ the vehicle ~~is propelled~~ being configured for propulsion by magnetic interaction generated between propulsion coils disposed along a track on a ground and a magnetic field system mounted on the vehicle by controlling power supply to the propulsion coils, ~~in order~~ and (2) configured to obtain rotational speed of the wheel disposed on the vehicle.